

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01**Remarks**

Reconsideration of the application is respectfully requested in view of the foregoing amendments and following remarks.

Claims 1, 3-8, 10-16, 18-20, 22-27, 57, 59-61, 63-65, and 67-73 are pending.

The Examiner rejected claims 1-28 under various grounds. Applicant respectfully mentions that claims 57, 59-61, and 63-65 are also pending as part of elected claim group 1. Applicant disagrees with the rejections given and the Examiner's characterizations; such rejections are addressed below.

The Examiner also objected to the title, detailed description, and abstract of the application. Applicant respectfully disagrees with these objections and the Examiner's characterizations. Applicant also addresses these objections below.

Applicant has added dependent claims 67-73.

I. Election/Restrictions, Status of Claims 57, 59-61, and 63-65

The Examiner imposed a restriction requirement, requiring that claims 29-56 be examined separately. Applicant respectfully disagrees with this objection. Nonetheless, to expedite prosecution, Applicant previously elected claim group 1 (claims 1-29 and 57-66) for examination, and Applicant has now canceled claims 29-56 without prejudice.

In the Office action dated August 25, 2004 ["Office action"], the Examiner states that claims 1-56 are pending and that claims 29-56 are withdrawn from consideration, but does not mention claims 57-66. Applicant respectfully notes that claims 57, 59-61, and 63-65 are also currently pending as part of elected group 1. Applicant directs the Examiner to the Office action dated October 3, 2003, where claims 1-28 and 57-66 were put by the Examiner in the same claim group (group 1). Applicant, in the response mailed November 21, 2003, elected group 1.

Applicant believes claims 57, 59-61, 63-65, and 73 to be allowable. Should the Examiner disagree, however, Applicant requests that the next Office action not be final since claims 57, 59-61, and 63-65 were not addressed in the Office action dated August 25, 2004.

II. Double Patent Rejections of Claims 1-28

The Examiner rejected claims 1-28 under the judicially created doctrine of obviousness-type double patenting. [Office action, pages 3-5.] Specifically, the Examiner rejected claims 1-28 of the

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01

present application in view of claims 1, 2, 4, 6, 9, 10, 12, 25, 32, and 35 of U.S. Patent No. 6,263,491; rejected claims 1-28 of the present application in view of claims 1, 2, 4, 5, 11, 13, and 17 of U.S. Patent No. 6,629,123; rejected claims 1-28 of the present application in view of claims 1, 4, 9, 12, and 25 of U.S. Patent No. 6,381,628; and rejected claims 1-28 of the present application in view of claims 1, 2, 4, 9, 10, 11, 18, 23, 30, 31, 36, 48, 53, 58, and 61 of U.S. Patent No. 6,381,735. Applicant respectfully disagrees with these double patenting rejections as well as the reasoning and characterizations expressed by the Examiner in the Office action. In any case, however, Applicant has submitted a Terminal Disclaimer with respect to U.S. Patent Nos. 6,263,491, 6,629,123, 6,381,628, and 6,381,735 to expedite prosecution.

Submission of the Terminal Disclaimer renders moot the double patent rejections of claims 1-28, and Applicant respectfully requests that these rejections be withdrawn.

III. Objection to the Title

The Examiner objected to the title of the application as being "not descriptive." [Office action, page 5.] Applicant respectfully disagrees with this objection. Nonetheless, Applicant has amended the title in an effort to expedite prosecution. Applicant notes that the title in no way limits the scope of any given claim. Rather, the language of each of the respective claims speaks for itself. Applicant respectfully requests withdrawal of the objection to the title.

IV. Objection to the Abstract

The Examiner objected to the abstract stating that it "should contain information based on the claimed subject matter." [Office action, page 6.] Applicant respectfully disagrees with the Examiner's objection. Nonetheless, Applicant has amended the abstract in an effort to expedite prosecution. Applicant respectfully requests withdrawal of the objection to the abstract.

V. Missing IDS Reference

Applicant thanks the Examiner for providing initialed Form 1449's for various Information Disclosure Statements filed in the application. Applicant also thanks the Examiner for pointing out a reference missing from the PTO file—R.R. Heisch, "Trace-directed program restructuring for AIX executables." A copy of the missing reference is enclosed with this Amendment.

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01**VI. Initialed Form 1449's**

Applicant thanks the Examiner for providing initialed Form 1449's for various Information Disclosure Statements filed in the application.

Included with the Office action was Page 1 (of 1) of the form 1449 for the IDS filed June 26, 2003 (received by the USPTO on July 7, 2003), which lists one non-patent reference by Pietrek. This form has not been initialed by the Examiner.

To date, Applicant has not received an initialed Form 1449 for the following:

(1) Page 1 (of 1) of the Form 1449 for the IDS filed January 10, 2000, (received by the USPTO on January 18, 2000), which lists, among other things, two non-patent references by Aral et al.

(2) Page 1 (of 1) of the Form 1449 for the IDS filed January 19, 2000 (received by the USPTO on February 7, 2000), which lists, among other things, a non-patent reference by Keppel, and a non-patent reference by Larus et al.

(3) Pages 1-3 (of 3) of the Form 1449 for the IDS filed March 9, 2001 (received by the USPTO on March 13, 2001), which lists, among other things, U.S. Patent No. 5,193,180 by Hastings.

(4) Page 1 (of 1) of the Form 1449 for the IDS filed April 4, 2001 (received by the USPTO on April 9, 2001), which lists, as its only item, a non-patent reference by Zielinski et al.

(5) Page 1 (of 1) of the Form 1449 for the IDS filed October 9, 2001 (received by the USPTO on October 17, 2001), which lists, among other things, U.S. Patent No. 5,675,805 by Boldo et al.

VII. Amendments to Correct Errors of a Minor, Typographical Nature.

Applicant has amended the Specification in various places to correct errors of a minor, typographical nature. The corrections to reference numerals address inconsistencies with the Figures and surrounding description.

VIII. 35 USC § 101 Rejections of Claims 1, 3-16, 18-20, and 22-27.

The Examiner rejected claims 1, 3-16, 18-20, and 22-27 as not satisfying 35 USC § 101. Applicant respectfully disagrees with the Examiner's characterization of the claims and relevant law, and believes that the claims in their previous state satisfied 35 USC § 101. Nevertheless, Applicant has amended the claims in an effort to expedite prosecution. Specifically, the language "A

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01

computer-readable medium storing computer-executable instructions for causing a computer system programmed thereby to perform” has been added to the beginning of the independent claims.

IX. 35 USC § 112, 1 Rejections

The Examiner rejected claims 1, 2, 14-17, 21, 23, and 26 for “failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in such a way as to reasonably convey to one skilled in the relevant art to use and/or make the invention.” [Office action, page 7; see also pages 7-9.] Applicant respectfully disagrees with these rejections.

A. In paragraph 13, the Examiner rejected claims 1, 2, 16, 17, 20, and 21 as not satisfying 35 USC § 112,1 (“the specification does not contain subject matter containing any software or hardware to implement limitation ‘assessing a relationship of an interface to a unit’”). Applicant respectfully disagrees, but has made various editorial revisions to the claims, which render the § 112, 1 rejections moot.

In claim 1, the term “unit” refers to one of “plural units” of a “software program,” and the term “known” has been replaced with the term “wrapped.” In claim 16, the term “known” has been replaced with the term “wrapped.” Again in claim 20, the term “known” has been replaced with the term “wrapped.” Claims 1, 16, and 20 are each supported by the Application as filed, for example, at pages 8-12 and 83-87 and Figures 17 and 18.

B. In paragraph 14, the Examiner rejected claim 14 as not satisfying 35 USC § 112,1 (“The specification does not contain subject matter containing any software or hardware to implement limitation ‘detecting a communication passing through the interface’, as cited in claim 14. For one skilled in the art, ‘communication’ can be e-mail.”). Applicant respectfully disagrees with this rejection. Applicant notes claim 14 recites, “detecting communication passing through the interface,” where the interface is exposed by one of plural units of a software program (claim 14 does not simply recite “communication”). The cited language from claim 14 is supported by the Application as filed, for example, at pages 9-12 and 82-85.

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01

C. In paragraph 15, the Examiner rejected claim 15 as not satisfying 35 USC § 112,1 ("The specification does not contain subject matter containing any software or hardware to implement limitation 'receiving a call to a unit activation function', as cited in claim 15. For one skilled in the art, 'call' can be a phone call. Also, it is not apparent how a call is received."). Applicant respectfully disagrees with this rejection. Applicant notes claim 15, as amended, recites "receiving from a client unit a call to a unit activation function" (claim 15 does not simply recite "call"). The cited language from claim 15 is supported by the Application as filed, for example, at page 12, 24, and 76-77.

D. In paragraph 16, the Examiner rejected claim 20 as not satisfying 35 USC § 112,1 ("The specification does not contain subject matter containing any software or hardware to implement limitations 'the interface wrapper stores a reference to instrumentation' and 'providing to a client unit', as cited in claim 20. For one skilled in the art, 'instrumentation' can be combination of multiple instruments. Also, it is not apparent what type of reference is made to the instrumentation."). Applicant respectfully disagrees with this rejection. The cited language from claim 20 is supported by the Application as filed, for example, at pages 8-12 and 82-85 and Figures 17 and 18.

E. In paragraph 17, the Examiner rejected claim 23 as not satisfying 35 USC § 112,1 ("The specification does not contain subject matter containing any software or hardware to implement limitations 'the reference to instrumentation' and 'instrumentation functions', as cited in claim 23. For one skilled in the art, 'instrumentation' can be combination of multiple instruments. Also, it is not apparent what type of reference is made to the instrumentation."). Applicant respectfully disagrees with this rejection. The cited language from claim 23 is supported by the Application as filed, for example, at pages 8-12 and 82-85 and Figures 17 and 18.

F. In paragraph 18, the Examiner rejected claim 26 as not satisfying 35 USC § 112,1 ("The specification does not contain subject matter containing any software or hardware to implement limitations 'measuring the size of the communication using the instrumentation' and 'invocation comprises a communication from the client', as cited in claim 26. For one skilled in the art, 'communication' can be e-mail."). Applicant respectfully disagrees with this rejection. The

KBR:kip 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01

cited language from claim 26 is supported by the Application as filed, for example, at pages 9-12 and 82-85.

X. 35 USC § 112, 2 Rejections

The Examiner rejected claims 1, 2, 8, 10, 13, 16, 17, 20-22, and 26 "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." [Office action, page 9; see also pages 9-10.] Applicant respectfully disagrees with these rejections. Applicant has made various editorial revisions to the claims, however, which render the § 112, 2 rejections moot.

XI. 35 USC § 102(b) Rejections

The Examiner rejected claims 1-28 under 35 USC § 102(b) as being anticipated by "Coign: Efficient Instrumentation for Inter-Component Communication Analysis," Technical Report 648, University of Rochester, Department of Computer Science ("URCS TR"). The URCS TR does not teach or suggest at least one limitation in each of claims 1, 3-8, 10-16, 18-20, 22-27, 57, 59-61, 63-65, and 67-73. Specifically, claim 1, as amended, recites:

...wherein a software program comprises plural units, and wherein one of the plural units exposes the interface;
determining if the interface has been wrapped by checking a data structure that tracks interface wrapping for the plural units of the software program;

Claim 16, as amended, recites:

determining if the interface is wrapped by checking a data structure that tracks interface wrapping for plural components of software, wherein one of the plural components exposes the interface;

The URCS TR does not teach or suggest the above-cited language from claims 1 and 16, respectively. The URCS TR describes an "alias" for a component, where the alias is "a dynamic component, created at runtime, that acts as a proxy for the real component." [URCS TR, page 3.] In the URCS TR, there is a 1-to-1 relationship between components and their aliases. ("Figure 2 shows a component and its alias. The alias holds pointers to each interface instantiated by the real component.") [*Id.*] Having a particular alias be associated with a *single component* (as in the URCS TR - "a proxy for the real component," "a component and its alias") leads away from determining if an interface (exposed by one of plural units) has been wrapped by checking a data structure that

KBR:klp 12/27/04 3382-51286-01 MS 116626.8 331105

PATENT
Atty. Ref. No. 3382-51286-01

tracks interface wrapping *for the plural units* (as in claim 1). It also leads away from determining if an interface is wrapped by checking a data structure that tracks interface wrapping *for plural components* of software (as in claim 16). Moreover, an alias in the URCS TR is "a dynamic component, created at runtime," which further ties the alias to a single component instantiation, and further leads away from the above-cited language of claims 1 and 16, respectively.


Claim 20, as amended, recites, "determining if the interface is wrapped using a hash table." The URCS TR does not teach or suggest the above-cited language from claim 20. The URCS TR indicates, "Whenever the COM library or an instrumented component returns a pointer to an interface, Coign replaces the interface pointer with a pointer to the corresponding interface alias." [URCS TR, page 3.] There is no mention of a hash table in the URCS TR. In fact, the URCS TR leads away from the above-cited language from claim 20. Simply replacing an interface pointer with a pointer to a corresponding interface alias when the interface pointer is returned (as in the URCS TR) involves automatic replacement, and leads away from determining if an interface is wrapped using a hash table (as in claim 20).

Each of claims 3-8, 10-15, 18, 19, 22-27, and 67-72 depends directly or indirectly from claim 1, 16, or 20. Applicant will not belabor the merits of the separate patentability of claims 3-8, 10-15, 18, 19, 22-27, and 67-72. Claims 1, 3-8, 10-16, 18-20, 22-27, and 67-72 should be allowable.

Conclusion

The claims in their present form should now be allowable. Such action is respectfully requested.

KLARQUIST SPARKMAN, LLP

By 
Kyle B. Ridehart
Registration No. 47,027

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204
Telephone: (503) 226-7391
Facsimile: (503) 228-9446

cc: Client
Docketing

331105

Page 26 of 26